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Two approaches to tailoring treatment for cultural minority adolescents

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Abstract

At this time, compared with mainstream (Caucasian) youth, cultural minority adolescents experience more severe substance-related consequences and are less likely to receive treatment. Although several empirically supported interventions (ESIs), such as motivational interviewing (MI), have been evaluated with mainstream adolescents, fewer published studies have investigated the fit and efficacy of these interventions with cultural minority adolescents. In addition, many empirical evaluations of ESIs have not explicitly attended to issues of culture, race, and socioeconomic background in their analyses. As a result, there is some question about the external validity of ESIs, particularly in disadvantaged cultural minority populations. This review seeks to take a step toward filling this gap, by addressing how to improve the fit and efficacy of ESIs like MI with cultural minority youth. Specifically, this review presents the existing literature on MI with cultural minority groups (adult and adolescent), proposes two approaches for evaluating and adapting this (or other) behavioral interventions, and elucidates the rationale, strengths, and potential liabilities of each tailoring approach. Published by Elsevier Inc.

Keywords: Substance abuse; Treatment; Cultural minority; Adolescents

1. Introduction

1.1. Health disparities

Similar to the current composition of some states (e.g., New Mexico), the United States is quickly on its way to becoming a minority majority country, where racial/ethnic (cultural) minority groups will be predominant, and current "mainstream" groups (e.g., Caucasian) will be less prominent. During the next 15 years, it is projected that there will be great gains in the population by Asian Americans, Hispanic Americans, African Americans, and American Indian/Alaska Natives (AIAN; Campbell, 1996). In addition, it is estimated that each of these cultures will comprise a significant proportion of the nation. For example, the percentage of Hispanic Americans alone is estimated to rise from 16.3% to 25% of the total population (DeNavas-Walt, Proctor, & Lee, 2006).

Despite the major presence of cultural minority groups within the United States, significant health disparities still exist (Carter-Pokras & Baquet, 2002), particularly in the treatment of addiction (Lowman & Le Fauve, 2003; Russo, Purohit, Foudin, & Salin, 2004). To this end, the manifestation and treatment of addiction are not equitable across cultural groups. Rather, studies have found that cultural minorities bear a substantially greater burden of substance-related consequences (Caetano, 2003; Galea & Vlahov, 2002; Nina Mulia, Ye, Greenfield, & Zemore, 2009; Mulia, Ye, Zemore, & Greenfield, 2008). Among adults, this has taken the form of greater levels of substance-related morbidity and mortality, including cancer, cirrhosis, arrests for DUI, and intimate partner violence (Trujillo, Castañeda, Martínez, & Gonzalez, 2006). In addition, among adolescents, studies have indicated that despite equivalent (if not lower) rates of substance use among cultural minority youth (Feldstein Ewing, Venner, Mead, & Bryan, 2011), cultural minority adolescents evidence

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substantially greater levels of substance-related problems, including drinking and driving, riding with a drinking driver, experiencing violence (physical fighting and relationship violence), and sexual risk behavior (CDC, 2010; Hellerstedt, Peterson-Hickey, Rhodes, & Garwick, 2006; S. Walker, Treno, Grube, & Light, 2003).

Several factors may contribute to these differences in substance use and related consequences. For example, cultural differences in patterns of consumption might lead to some of the observed differences in consequences (e.g., Arroyo, Miller, & Tonigan, 2003). In addition, among cultural minority adolescents, greater rates of poverty, higher visibility of and exposure to substances, perceived ease of obtaining substances, and higher levels of policing in the youths' community may also play a role (Wallace, 1999). Furthermore, there may also be a differential pattern of treatment and referral between cultural minority and mainstream Caucasian youth, whereby cultural minority youth may be "referred" to justice settings rather than to treatment (e.g., Aarons, Brown, Garland, & Hough, 2004; Feldstein, Venner, & May, 2006). Moreover, at this time, cultural minority adolescents are less likely than Caucasian youth to receive substance abuse interventions (e.g., Garland et al., 2005; Wallace, 1999; Wu, Hoven, Tiet, Kovalenko, & Wicks, 2002). They also evidence lower levels of treatment engagement and completion (Alegria, Carson, Goncalves, & Keefe, 2011). Critically, most examinations of adolescent substance abuse treatment efficacy and related factors have been limited to mainstream Caucasian youth; at this time, there is great need to improve our understanding of treatment with cultural minority youth in order to improve intervention efficacy (Austin, Hospital, Wagner, & Morris, 2010).

1.2. The promise of MI

Because cultural minority youth may be less likely to successfully engage in, receive, or complete substance abuse interventions, innovative approaches are needed to reach these high-need and underserved youth. One approach that has demonstrated promise is MI (Miller & Rollnick, 2002). The brevity and transportability of this intervention have made it ideal for articulation to settings where hard-to-reach youth may emerge, such as juvenile justice settings, medical settings, and schools (e.g., D'Amico, Miles, Stern, & Meredith, 2008; Feldstein & Ginsburg, 2006; Martin & Copeland, 2008; McCambridge, Slym, & Strang, 2008; Peterson, Baer, Wells, Ginzler, & Garrett, 2006; Spirito et al., 2004; Stein et al., 2011; Walker, Roffman, Stephens, Wakana, & Berghuis, 2006). Not only is this brief (one to two sessions), empathic, and strength-based intervention highly transportable, but it also is highly effective across a number of substance use and health risk behaviors (e.g., Hettema, Steele, & Miller, 2005; Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010). Moreover, it is particularly good at facilitating therapeutic alliance with wary recipients, such as non-treatment-seeking, substance-abusing youth (D'Amico et al., 2008; McCambridge et al., 2008; Peterson et al., 2006). In addition, qualitative studies have suggested that the approach of MI resonates with this age group, with high percentages of youth reporting that they liked the MI interventions and would recommend it to a friend (D'Amico, Osilla, & Hunter, 2010; Martin & Copeland, 2008; Stern, Meredith, Gholson, Gore, & D'Amico, 2007). This is likely because of the nonjudgmental, empathic, and collaborative approach of MI (e.g., Miller, Villanueva, Tonigan, & Cuzmar, 2007), whereby adolescents' own values, opinions, and arguments for change are the most valued and reflected part of the therapeutic discussion.

Although MI holds promise for use with cultural minority youth, few studies have explicitly evaluated the "fit" of MI across cultural groups. This is concerning because there are also many aspects of MI that may work less well for cultural minority youth. For example, in contrast to the egalitarian approach of MI, where the therapist is expected to be "on the same level" as their clients, some cultural groups may wish to receive help from someone who is an expert (e.g., Lopez Viets, 2007) and may be more comfortable with, and/or even desire, client–therapist power differentials (e.g., Hays, 2009; S. T. Miller, Marolen, & Beech, 2010). Furthermore, some cultural groups may prefer for other family members (parents, grandparents) to be actively involved in therapy, rather than having their child attend an adolescent-only, individual-level or group-level intervention (e.g., Lopez Viets, 2007).

Although the potential fit of MI with cultural minority youth has not been fully examined, MI has been widely disseminated across settings where cultural minority youth predominate. Further, it has been actively promoted as an intervention for use with cultural minority youth (Kirk, Scott, & Daniels, 2005). Because there are aspects of MI that may be a good fit with cultural minority youth, but also aspects that may make it potentially less efficacious, it is critical to specifically determine how to evaluate (and improve) the efficacy of interventions like MI with cultural minority youth. This review seeks to take a step toward filling this gap, by addressing how to improve the fit and efficacy of empirically supported interventions (ESIs) like MI with cultural minority youth. Specifically, this review seeks to present the existing literature on MI with cultural minority groups (adult and adolescent), propose two approaches for evaluating and adapting this (or other) behavioral intervention approaches, and elucidate the rationale, strengths, and potential liabilities of each approach.

2. Mi with cultural minority groups

2.1. Findings with adults

Studies have indicated the impact and efficacy of brief interventions in reducing substance abuse (Miller &

Wilbourne, 2002). One of the most popular and widely disseminated brief interventions is MI. Across large-scale meta-analyses with predominantly adult samples, MI has evidenced a greater effect size (ES) across cultural minority groups as compared with Caucasian populations (d = 0.79 vs. 0.26, respectively; Hettema et al., 2005). Moreover, those who have incorporated MI or related aspects into health behavior prevention/intervention efforts with predominantly cultural minority samples have found generally promising outcomes, with a handful of exceptions. Specifically, in the adult AIAN community, MI has been found to help reduce drinking behavior (d = 0.43; May et al., 2008) and related health risk behavior (d = 0.81; Foley et al., 2005). In addition, when directly compared with other treatments, MI has resulted in better outcomes among AIAN adults (d = 0.34–0.76; Villanueva, Tonigan, & Miller, 2007; Woodall, Delaney, Kunitz, Westerberg, & Zhao, 2007). Similarly, among the adult Asian American community, MI-based interventions have resulted in greater substance use reductions (tobacco quit rates 67% for MI vs. 32% for control; Wu et al., 2009). In addition, among Hispanic American adults, MI-based interventions have facilitated substance use reductions (odds ratio [OR] = 0.55, 95% confidence interval = 0.18–0.91; Robles et al., 2004), as well as improvements in related health behavior (d = 0.25; Patterson et al., 2008).

Despite these positive outcomes, there have also been areas where MI has been less effective. Among African American adults, although MI has successfully catalyzed improvements in health behavior across some investigations (e.g., 59% for MI vs. 43% for controls for medication adherence, Holstad, DiIorio, Kelly, Resnicow, & Sharma, 2010; d = 2.7 for improvements in fruit and vegetable intake, Resnicow et al., 2005), others have not found positive outcomes with MI (e.g., Ahluwalia et al., 2006). Moreover, in a qualitative study using focus group methodology, MI was evaluated as a potential counseling strategy within a physical activity promotion program. Following their viewing of an example physician–patient consult (from an MI training DVD), rural African American women with Type 2 diabetes reported that MI represented a good communication approach but was too patient centered for their comfort (Miller et al., 2010). Subsequently, the authors underscored the importance of attending to cultural group needs and tailoring MI accordingly (e.g., to rural clinical settings and patient communication preferences).

In sum, although there is indication that MI has great potential for use with cultural minority adults across a range of substance use and related health risk behavior, the results are equivocal. It is likely that the observed differences in outcomes are influenced by the diversity that exists both within and across cultural minority groups (Miller et al., 2007). Thus, these data highlight the importance of examining the fit of this intervention to specific cultural minority groups to improve its efficacy.

2.2. Findings with youth

Although fewer studies have explicitly explored the fit of MI with cultural minority youth (e.g., Gil, Wagner, & Tubman, 2004; Gilder et al., 2011), several well-conducted studies have found promising outcomes with predominantly cultural minority youth across a number of substance use and related health behaviors (e.g., D'Amico et al., 2008; Gil et al., 2004; Schmiege, Broaddus, Levin, & Bryan, 2009; Walton et al., 2010). For example, with a predominantly Hispanic adolescent sample, D'Amico et al. (2008) found that an MI intervention led to reductions in binge drinking episodes (d = 0.22), frequency of alcohol use (d = 0.80), frequency of marijuana use (d = 0.84), and affiliation with substance-using peers (ds = 0.37 and 0.66, for alcohol-using and marijuana-using, respectively). Similarly, following a motivationally based intervention, Gil et al.'s sample of predominantly high-risk, African American and Hispanic youth (juvenile offenders) decreased their frequency of marijuana use from 83%–90% to 40%–49% of days per month, and their frequency of alcohol use (~86% to 33% of days per month), two thirds to one third of days per month. In addition, with a sizeable sample of Hispanic and African American youth, Schmiege et al. demonstrated that adding an MI component targeting alcohol use to a sexual risk prevention program reduced the likelihood of having sex while drinking (d = 0.13, d = 0.40 when compared with sex risk without alcohol, and information control conditions, respectively). In Walton et al.'s evaluation of MI with a substantial sample of urban African American youth, the authors found 32.2% reductions in alcohol-related consequences at the 6-month follow up (OR = 0.56). In addition, in a qualitative assessment with AIAN youth, Gilder et al. found that both tribal youth and their elders believed that an MI-based intervention incorporating family members would be acceptable within the community as an approach to reduce underage alcohol use. Similarly, in a preliminary analysis of an ongoing research protocol evaluating MI across a sample of Hispanic American and Caucasian youth (Feldstein Ewing, 2011), Hispanic American youth who received an MI intervention targeting substance use reductions reported liking the MI intervention (n = 68, M = 4.5 on a scale of 1–5) and most stated that they would recommend it to a friend (M = 4.46 on a scale of 1–5). In terms of other adolescent health behaviors, with predominantly African American samples, MI-based interventions have improved depression and readiness to change, but not self-efficacy, among HIV-positive youth (Naar-King, Parsons, Murphy, Kolmodin, & Harris, 2010), as well as treatment compliance with an asthma medication regimen (Riekert, Borrelli, Bilderback, & Rand, 2011).

Although several studies have demonstrated MI's potential with cultural minority youth, few have explicitly evaluated the role of race, ethnicity, or culture in outcomes. This area deserves attention because preliminary evidence suggests that cultural factors may influence treatment response in MI-based interventions (e.g., level of ethnic

mistrust, cultural orientation, ethnic pride; Gil et al., 2004). More research is necessary to highlight factors that may differentially influence outcomes by cultural group to identify culturally relevant variables that may be important to include in intervention adaptation.

Furthermore, the wide range of effect sizes (ES) observed among the adolescent studies is reflective of the broader youth MI literature, whereby lower effects sizes have been observed across youth as compared with adult studies (ES for MI among adults = 0.25 vs. ES for MI among adolescents = 0.16; Burke et al., 2003; Jensen et al., 2011). These findings indicate that there are several areas where *both* the developmental and the cultural fit of MI could be improved. However, few published studies have provided guidance as to how to effectively tailor ESIs like MI (e.g., Interian, Martinez, Rios, Krejci, & Guarnaccia, 2010), particularly with this age group. Thus, to address this area of need, we provide two compelling approaches for evaluating the cultural fit of MI among adolescents and adapting it accordingly.

3. Improving the fit of MI with cultural minority youth: Adapt and Evaluate versus Evaluate and Adapt

3.1. Adapt and Evaluate

Studies have increasingly addressed the importance of tailoring ESIs to cultural minority groups, particularly in adolescent treatment (e.g., Bernal, 2006; Bernal & Sharron-del-Rio, 2001; Domenech-Rodriguez, Baumann, & Schwartz, 2011; Lau, 2006). Along these lines, these researchers have suggested that ESIs offer great potential but need refinement before implementation with different cultural minority groups (e.g., Huey & Polo, 2008; Marlatt et al., 2003; Miller et al., 2007; Venner, Feldstein, & Tafoya, 2007). One way to improve the fit of ESIs is to adapt the intervention to ensure that it has greater cultural congruence prior to administration (e.g., Bernal, 2006; Domenech-Rodriguez et al., 2011). In this approach, the goal is to retain the active ingredients of the intervention. In the example of MI, this might include aspects such as reflective listening, accurate empathy, development of discrepancy, and support of self-efficacy while delivering the intervention in a culturally congruent way (e.g., in a way that is consistent with the language, customs, attitudes, behavior, and cultural context; Interian et al., 2010). Consonant with recent efforts to involve community members in steps toward improving health equity, this approach is grounded in the community-based participatory research (CBPR) approach (Castro, Barrera, & Martinez, 2004); subsequently, community-based participation is central to this strategy. Incorporating CBPR with adolescents has been an area gaining increasing attention (e.g., Corbie-Smith et al., 2010; Cross et al., 2011; Shetgiri et al., 2009) and provides an important way to inform and guide tailored treatment development.

3.1.1. Proposed strategies for Adapt and Evaluate

Following critical work in this field (e.g., Interian et al., 2010), this proposed approach is composed of five steps (see Fig. 1). Step 1 requires organizing one to two focus groups with community members who represent the targeted cultural community of adolescents (e.g., high-risk Hispanic American youth ages 14–18 years). Once the focus group has been gathered, we recommend presenting the key clinical approaches, as well as an active example of the intervention (a brief demonstration of an MI session), to determine the groups' perspectives on the cultural congruence and acceptability of the key clinical strategies, and to elucidate areas that require modification. For example, to adapt MI with Hispanic American youth, we would recommend creating two independent focus groups (e.g., four to six members in each group, with girls in one group and boys in a second), which would be conducted by two senior staff members. Within the focus group, example stem questions might include the following: "How would you feel about meeting with a counselor about your substance use *with* your parents? *Without* your parents? How might your parents feel about you talking to a counselor? What about talking to a counselor *without* them present?" "How comfortable might you feel talking with a counselor about your thoughts and feelings, with you doing most of the talking?" "Let's have you watch an example conversation between a counselor and a person struggling with changing their marijuana use." "Now that you've seen that conversation, tell me—what things did the counselor do that you liked? What did the counselor do that you liked less? What aspects about the conversation made you more comfortable? Less comfortable?"

In addition to having someone take notes during the focus group (a research staff member can be positioned back behind the focus group to observe and track the proceedings), we strongly recommend audio-recording these focus groups (contingent upon the requisite community-based and institutional review board permissions) and transcribing the proceedings. Although ensuring that all voices are heard is a challenge of focus group-based work (Venner et al., 2007), these procedures offer some steps toward guarding against the quieter voices being lost. Most importantly, these qualitative data are crucial for shaping adaptations to the intervention manual. Step 2 includes incorporating the feedback (generated from the focus groups) into the working version of the adapted intervention manual. In this step, if youth talked about the importance of including parents, then one would include parents in some way as part of the adapted intervention. For example, parents might be included in the orientation/welcoming session, with the second session being youth only, or if youth determined that parents are central to their improvement, then one would take steps toward making the MI a more family-based intervention (e.g., Dishion, Nelson, & Kavanagh, 2003; Spirito et al., 2011).

As demonstrated in Venner et al.'s (2007) recent adaptation of MI with AIAN adults, the community-based

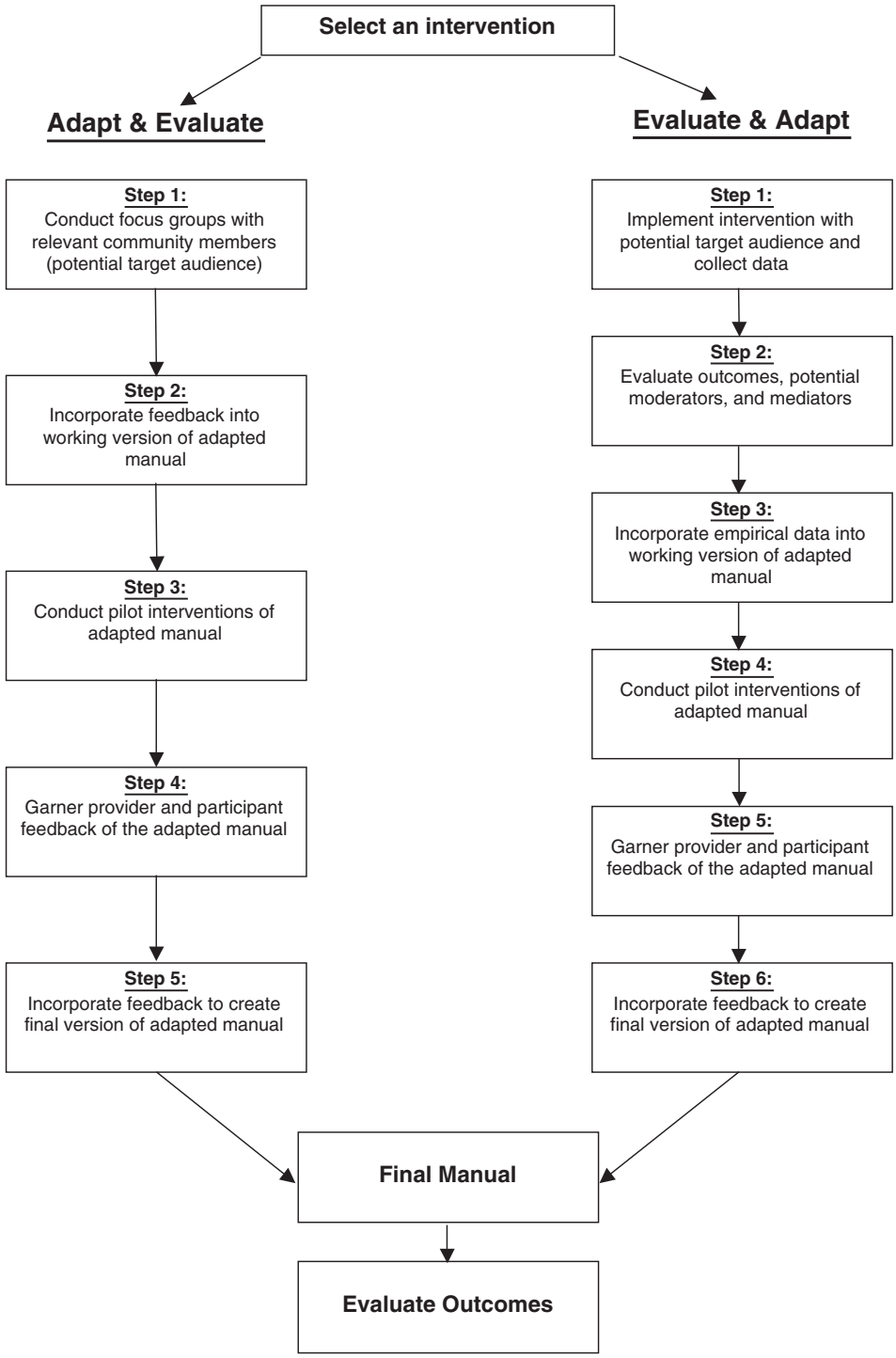

Fig. 1. Flowchart for two approaches to tailoring interventions.

focus groups identified several facets of MI that were discrepant from AIAN cultures (e.g., absence of spirituality from the approach; the reluctance of participants to give dissenting opinions to treatment providers, as they are people in power). Thus, in Venner et al.'s adapted version of their MI manual, they took several steps to address these concerns. For example, they openly included spirituality in the manual (incorporating an MI-based prayer), as well as suggestions for how to actively use spirituality in a session (e.g., opening a session with a prayer), and recommendations for what to avoid (e.g., not asking participants details about their spiritual practices, as they may be sacrosanct). To attend to the issue of participants feeling like they might not be able to openly disagree with providers, the authors incorporated text describing how participants might not feel comfortable providing dissenting opinions (e.g., instead showing their

Table 1
Counselor measure: Assessment of the intervention (subjective report)

Instructions: We are interested in learning more about how your meeting went. Please circle the answer that best fits for each question. Your answers are very important to us.

1. What language did you and your participant use in your meeting?			Spanish	English	Other:_____
2. Was your participant the same ethnicity as you?				Yes	No
3. Do you feel like you understood their culture?				Yes	No
4. Do you feel like you understood their background?				Yes	No
5. Overall, how well did you think the meeting went?	Excellent	Good	Medium	Fair	Poor
6. Overall, how would you rate the quality of discussions?	Excellent	Good	Medium	Fair	Poor
7. Do you feel like the participant got the kind of information they wanted or expected?	No, definitely not	No, not really	Neither yes nor no	Yes, generally	Yes, definitely
8. Do you think that they would recommend this kind of meeting to a friend?	No, definitely not	No, not really	Neither yes nor no	Yes, generally	Yes, definitely
In our meeting today:	Strongly Agree				Strongly Disagree
9. I was able to be empathic	1	2	3	4	5
10. I was able to be open	1	2	3	4	5
11. I was able to use reflections	1	2	3	4	5
12. I was able to help the participant develop discrepancy	1	2	3	4	5
13. I was able to support the participants' self-efficacy	1	2	3	4	5
14. I was able to avoid providing advice without permission	1	2	3	4	5
15. I was able to avoid using close-ended questions	1	2	3	4	5
16. I was able to draw out (elicit) the participant's story	1	2	3	4	5
17. The participant provided change talk	1	2	3	4	5
18. The participant was able to provide dissenting opinions, when they needed to	1	2	3	4	5
19. The participant knew that I was really trying to understand them	1	2	3	4	5
20. The participant thought that I was easy to talk to	1	2	3	4	5
21. The participant thought that I listened openly to what they had to say about drinking	1	2	3	4	5
22. The participant thought that they could change their drinking, if they wanted to	1	2	3	4	5
23. We talked about some strategies for the participant to change their drinking, if they wanted to	1	2	3	4	5
24. The participant felt like they could change their drinking, even if their friends don't	1	2	3	4	5
25. The participant felt like I did not judge what they had to say about their drinking	1	2	3	4	5
26. The participant felt like I helped them see some of their strengths	1	2	3	4	5
27. We discussed how alcohol might (or might not) fit with the participant's goals	1	2	3	4	5
28. We discussed how the participant could handle future drinking situations	1	2	3	4	5

disagreement by not providing behavior change during the follow-up session or by not showing up for a second session), as well as provided a concrete example of how to conduct the "ask provide ask" tool in a less direct tone.

For Step 3, we recommend piloting the adapted intervention with at least five adolescent participants (for individual interventions) and with at least two adolescent groups (for group interventions) who represent the range of the targeted audience (e.g., younger youth as well as older youth, both genders). In Step 4, we recommend gathering the requisite data from the pilot testing in several ways. First, we recommend that the counselor take detailed notes about what went well and not so well regarding the intervention (stems might include "What went well in our meeting today," "What went less well in our meeting today," "What might have improved today's meeting"), as well as complete an assessment of their experiences (see example provided on Table 1) and an assessment of working alliance (such as the Working Alliance Inventory; Horvath & Greenberg, 1989). Gathering these data are necessary, particularly for youth of cultures where there is a high reverence to adults and professionals and/or for youth who are from cultures where candor is less accepted.

Second, even if youth are less comfortable sharing their opinion, it is important to explicitly check in with the adolescent pilot participants following the administration of the adapted intervention to see how well they liked the intervention and what they would change. In addition to completing a satisfaction measure (see Table 2 for an example), we recommend having a staff member (not the counselor) ask the youth, "What things did you like about the meeting that you had with Dr. Hilary?" "What things did you

Table 2
Client satisfaction measure: Comfort with intervention (subjective report)

Instructions: We are interested in how satisfied you were with meeting. Please circle the answer that best fits for each question. Your answers are very important to us.

1. What language did you and your counselor use in your meeting?			Spanish	English	Other:_____
2. Was your counselor the same ethnicity as you?				Yes	No
3. Do you feel like your counselor understands your culture?				Yes	No
4. Do you feel like your counselor understands your background?				Yes	No
5. Do you feel like your counselor is an expert?				Yes	No
6. Overall, how would you rate the quality of your counselor meeting?	Excellent	Good	Medium	Fair	Poor
7. Overall, how would you rate the quality of discussions with your counselor?	Excellent	Good	Medium	Fair	Poor
8. How satisfied were you with your counselor?	Very dissatisfied	Moderately dissatisfied	Neither satisfied nor dissatisfied	Moderately satisfied	Very satisfied
9. Did you get the kind of information you wanted or expected?	No, definitely not	No, not really	Neither yes nor no	Yes, generally	Yes, definitely
10. Would you recommend this kind of counselor meeting to a friend?	No, definitely not	No, not really	Neither yes nor no	Yes, generally	Yes, definitely
The counselor today:	Strongly Agree				Strongly Disagree
11. Really tried to understand who I am	1	2	3	4	5
12. Was easy to talk to	1	2	3	4	5
13. Listened openly to what I had to say about drinking	1	2	3	4	5
14. Helped me feel I could change my drinking, if I want to	1	2	3	4	5
15. Talked with me about some strategies to change my drinking, if I want to	1	2	3	4	5
16. Made me feel like I could change my drinking, even if my friends don't	1	2	3	4	5
17. Did not judge what I had to say about my drinking	1	2	3	4	5
18. Helped me see what some of my strengths are	1	2	3	4	5
19. Discussed how alcohol might (or might not) fit with my goals	1	2	3	4	5
20. Was helping me think about how to handle future drinking situation	1	2	3	4	5

like less well about the meeting with Dr. Hilary?" "What things would you change about your meeting with Dr. Hilary?" "What things do you wish that she had done differently?" Although it is ideal for youth to express their opinion, it is also okay if youth only feel comfortable providing limited or fairly topical answers. Step 5 involves incorporating the diligently recorded counselor and participant feedback into the intervention manual; the resulting product is the final manual.

3.2. Evaluate and Adapt

Although the efficacy of ESIs among minority populations has yet to be closely scrutinized (Miranda, Nakamura, & Bernal, 2003), the findings of Hettema et al. (2005) suggest that it is equally possible that MI in its original form may work well (if not better) with cultural minority populations, and the aspects of MI that make it ideal for adolescent work may mean that it is an excellent fit for cultural minority youth. Notably, one compelling consideration is that although MI in its original form might be equally efficacious across cultural groups, the mechanisms of change may be different. For example, the focus on individual-oriented internal cognitions (like motivation for change) may be salient for one cultural group, whereas community-oriented cognitions (such as the ability to navigate peer influences) may be more salient to another group. Thus, the goal in "Evaluate and Adapt" is to implement the intervention in its original form and evaluate the intervention across a number of key constructs (behavior outcome data, potential moderators and mediators) to determine how they fit for a specific cultural group. In contrast to "Adapt and Evaluate," which relies upon the qualitative feedback of the CBPR, this approach is grounded upon quantitative data; differential (or highly variable) behavior outcomes between or within cultural groups indicate the need to adapt the treatment to improve its efficacy (Lau, 2006), as well as provide guidelines about what facets need to be reinforced or reduced in the adaptation process.

In terms of potential factors to evaluate, we believe that it is most important to evaluate target behavior outcomes, such as quantity and frequency of substance use, and substance-related problems to determine if they differ by cultural group. In addition, we think it is worthwhile to also evaluate moderators and mediators that might modulate adolescents' treatment response. For example, we suggest collecting data

on both therapists' experiences with the youth (e.g., Table 1 and a working alliance measure), as well as adolescents' subjective response to the intervention (e.g., Table 2). Evaluation of whether subjective response (acceptability) differs by cultural group is highly informative. Although individual difference factors have not been found to systematically modulate therapeutic outcomes (e.g., Longabaugh et al., 2005; Project Match Research Group, 1997), a number of constructs continue to appear salient to MI interventions (e.g., self-efficacy; LaChance, Feldstein Ewing, Bryan, & Hutchison, 2009), and some of these factors (e.g., self-efficacy) appear to differ by culture (e.g., Bryan, Robbins, Ruiz, & O'Neill, 2006; Bryan, Ruiz, & O'Neill, 2003). Thus, investigating how posited active ingredients influence adolescent outcomes and how those patterns of influence compare by culture is important. As emphasized in prior research (Gil et al., 2004; Munoz & Mendelson, 2005), it is also critical to look at cultural-level factors, such as acculturation, ethnic orientation, ethnic pride, discrimination, and religion/spirituality, as well as broader environmental factors (e.g., exposure to trauma, poverty, availability of substances in the community) to determine how these factors may influence youths' response to the intervention. Finally, it is important to evaluate how interested and invested cultural groups or subpopulations might be in having empirically supported interventions. Specifically, some cultural groups of youth and their parents may resist western ESIs because of the fear that the treatment will eradicate methods of traditional and indigenous healing, or because they prefer to use familial or culturally-informed treatment strategies (e.g., Gone, 2009; Koinis-Mitchell et al., 2008). Evaluation of these factors is critical to determine how best to approach adaptation and the necessary factors that might facilitate (or hinder) implementation. This might include evaluating factors such as the need for alliance development with youth, their parents, and the community before broaching intervention implementation or determining whether the adolescent cultural group might prefer a dual-treatment strategy, where indigenous forms of healing would be deliberately integrated with empirically supported psychosocial interventions (Hwang, 2006).

3.2.1. Proposed strategies for evaluate and adapt

The first step of this proposed approach requires implementing the original intervention (e.g., MI) with an identified group of adolescent participants (e.g., with African American and Caucasian youth; see Fig. 1). To gather the requisite data to guide the adaptation, it is imperative to measure both basic behavior outcome data (e.g., quantity and frequency of use, substance-related problems) and the key constructs of interest (e.g., therapists' perception of the intervention, adolescents' perception of the intervention, individual difference factors, cultural factors, environmental factors).

Once the intervention has been implemented and behavior outcome data have been collected (Step 1), Step 2 requires evaluating the outcomes, the potential moderators, and the potential mediators. Through this step, one might find that MI is less effective with one of the adolescent cultural subgroups (e.g., Befort et al., 2008; Miller et al., 2010) or that different factors appear to influence behavior outcomes more for one cultural group or another or even within different cultural groups themselves (e.g., Nagayama Hall, 2001; Tubman, Gil, & Wagner, 2004). Similar to how the qualitative research data were integrated into the revised manual in "Adapt and Evaluate," in Step 3 of Evaluate and Adapt, these quantitative data are used to guide the modification of MI to make it more efficacious for the target community of adolescents. Specifically, if self-efficacy appeared to have a greater impact for African American youth, then more MI-consistent exercises designed to foster and support self-efficacy could be included in the adapted manual (e.g., youth version of adjectives of successful changers; Feldstein & Ginsburg, 2007, success stories Moyers, 2005). Once all of the requisite adaptations have been made to the manual, as with Adapt and Evaluate, we recommend taking the following three steps to ensure that the adapted manual is tenable, feasible, and acceptable to participants, again incorporating any suggestions that they provide into the final manual. Specifically, Steps 4 through 6 include pilot testing the adapted manual with at least five adolescent participants (for individual interventions) and at least two adolescent groups (for group interventions), using qualitative and quantitative approaches to explicitly check in with the interventionists and pilot participants to determine how acceptable the intervention was (e.g., how well they liked the intervention and if and what they might change) and incorporating their feedback into the final manual.

3.3. How do we know it is MI?

Perhaps the most important question across both approaches is whether the intervention has retained its key active ingredients. Although adaptations to various MI interventions have been made across cultural subgroups, considerably less attention has been paid to evaluating outcomes of the final manual (or the implemented adaptation) and/or determining the level of fidelity with the parent intervention. Although some may argue that dissemination of ESIs like MI might be more important than attentive adherence to intervention integrity (e.g., Miller et al., 2007) or that the integrity of the treatment may not be important if patients are experiencing positive outcomes, similar to Interian et al. (2010), we believe that formal evaluation of the final manual is critical. Specifically, we recommend administering the final manual to the target adolescent audience and collecting empirical outcome data to determine the efficacy of the adapted intervention approach and to ensure that the active ingredients are still present in the adapted approach (e.g., Castro et al., 2004). These data are informative across several levels; they inform whether the adapted

intervention is effective with the adolescent subgroup (e.g., if quantity of alcohol use decreased). In addition, they highlight whether the adapted intervention is still congruent with the original intervention. In MI, we recommend evaluating both subjective and objective perception of the active ingredients. In terms of subjective ratings, we recommend client/provider satisfaction measures (e.g., to what degree did therapists believe they were MI consistent; to what degree did youth observe the presence or absence of MI-consistent behaviors by their therapist; see Tables 1 and 2). We also recommend collecting objective behavior counts because therapists' ratings of their intervention delivery often do not correlate well with independent coder ratings (e.g., Carroll et al., 2002; Madson & Campbell, 2006; W. R. Miller & Mount, 2001). At this time, several objective integrity measures exist to evaluate the presence of MI components and/or practitioners use of MI-consistent behaviors (e.g., MITI, SCOPE; Moyers & Martin, 2006; Moyers, Martin, Houck, Christopher, & Tonigan, 2009; Moyers, Martin, & Manuel, 2005). Although some are slightly better equipped for evaluating MI integrity in adaptations of MI (e.g., BECCI; Lane et al., 2005), one liability of adapting an intervention is that it renders evaluations of integrity a bit more difficult. To that end, if the basic tenets of MI are adapted to improve cultural congruence, then it stands to reason that standard behavioral coding instruments might not work as well with an adapted intervention. Notably, at this time, this remains an empirical question. In addition, although some research groups have taken steps in this direction, measurement approaches to evaluate MI integrity across adapted interventions still warrant attention.

4. Recommendations for addressing multiculturalism

Although mental health treatments have been found to be four times more effective when adapted for the cultural context and values of the specific client (Griner & Smith, 2006), additional external factors must be attended to promote best practice within cultural minority youth, as these factors are also likely to have a role in the complex process of treatment engagement and participation. Specifically, recent studies have highlighted the complex panoply of issues that might challenge otherwise effective child and adolescent interventions (Koinis-Mitchell et al., 2010). Specifically, studies have found that acculturative stress, discrimination, level of economic resources relative to the number of family members in their home, neighborhood stress, belief about the efficacy of treatment and comfort with the intervention approach, migration experiences, and ability to navigate the health care system may all contribute to variations in behavior outcomes following treatment, particularly for cultural minority youth (Koinis-Mitchell et al., 2010).

One way to promote attention to these multifaceted issues during the development and implementation of treatment is to retain an active awareness of the ADDRESSING framework (Hays, 2008). As posited by Hays, this acronym serves as reminder that culturally competent treatment with youth includes: Age and generational issues, Developmental disabilities, Disabilities acquired later in life, Religion and spiritual orientation, Ethnic and racial identity, Socioeconomic status, Sexual orientation, Indigenous heritage, National origin, and Gender (Hays, 2008).

In addition to retaining an active awareness of the ADDRESSING framework, several broader level recommendations are warranted for work with cultural minority adolescents. Specifically, clinicians might consider initiating conversations about the adolescent's beliefs about the ADDRESSING indicators. Specifically, adolescents may differentially identify with specific factors (e.g., being female, generational issues, vs. disabilities acquired later in life). Providers would therefore benefit from understanding adolescents' unique and developing perspectives when tailoring interventions (Hwang, 2006). It may also be helpful for adolescents who have divergent beliefs from their families of origin to receive additional support in implementing behavior change strategies at home and in their communities. Moreover, although individual- and group-level work with adolescents focuses on the adolescent, all work with youth necessarily involves collaboration with families. Thus, it is important for therapists to be conscious of (while being careful not to challenge or condemn) acculturative conflict between children, parents, and grandparents, as intergenerational conflict may influence the family, the youth's treatment engagement, and the youth's ability to catalyze and sustain behavior change (e.g., Zamboanga, Schwartz, Jarvis, & Van Tyne, 2009). Similarly, it is important to be conscious that families are likely to have a history of (or may currently be) experiencing chronic stressors such as poverty or oppression and that these experiences may influence both participants' participation in therapy, as well as their likelihood of being successful in behavior change.

5. Discussion

5.1. Clinical implications

Although many well-intentioned practitioners aim to improve their treatment of cultural minority adolescents, it is difficult to do so without a guiding strategy. At the moment, there is a paucity of literature guiding the use of ESIs for cultural minority populations (Nagayama Hall, 2001), particularly with youth. In addition, at this time, many empirical evaluations of ESIs have not explicitly attended to issues of culture, race, and socioeconomic background in their analyses (Duran, Wallerstein, & Miller, 2007). As a result, there is some question about the external validity of

ESIs, particularly in disadvantaged cultural minority populations (Duran et al., 2007). Similarly, arguments have been made that a cultural prescriptive approach (e.g., always emphasizing family when working with Hispanic Americans, being careful not to look Native American patients in the eye when treating AIAN clients), although often well intended, fail to account for the heterogeneity that exists within adolescent cultural groups (Miller et al., 2007). One way to carefully attend to the needs of diverse cultural groups, particularly with high-risk and/or substance-abusing youth who may display great ranges in cultural affiliation depending on acculturation, geography, socioeconomic background, and community (Wallace, 1999), is to carefully tailor ESIs, such as MI, to both the cultural and developmental community of youth with whom one works.

Although many ESIs, including MI, may have foundational approaches (e.g., client centeredness) that may be consistent across adolescent cultural groups (Miller et al., 2007), to be truly culturally sensitive, an adaptation must be specific and responsive to the heterogeneity within an adolescent cultural group (e.g., Cuban Americans vs. Puerto Ricans; Plains Indians vs. Pueblo Indians; North Africans vs. West Africans). Thus, although certain parts of the adaptation might be fundamentally and universally delivered across adolescent cultural groups (e.g., focus on client centeredness, emphasis on adolescent's autonomy; Miller et al., 2007), as found within Miller's recent work, other aspects might need to be more specifically adapted to the needs of the different subpopulation (e.g., tailoring for more prescriptive vs. deductive therapist approaches). Determining how finely to slice adaptation is a critical question. Answering this question involves balancing the effectiveness of the available intervention approach (How well does the intervention work as is? What is the current efficacy?), the benefits of improving adherence (Would a further adaptation significantly improve outcomes?), and the amount of time required to adapt the intervention to the cultural subgroup.

Equally important is the issue of treatment delivery. Although some large-scale studies have found that matching patients and providers across a number of variables (including ethnicity) did not directly influence treatment outcomes (for better or for worse, e.g., Cabral & Smith, 2011; Suarez-Morales et al., 2010), other adolescent and adult studies have found improved outcomes with matched ethnicity (e.g., Field & Caetano, 2010; Flicker, Waldron, Turner, Brody, & Hops, 2008). A more complicated and compelling question is how to assess cultural knowledge, competence, and congruence both within patients and providers of the same ethnicity, as well as for clinicians providing care across cultural lines. Although only a handful of studies have begun to explore these questions (e.g., Nagayama Hall, 2001; Rogers & Lopez, 2002; Sue, Arredondo, & McDavis, 1992), additional studies are clearly needed to evaluate how these factors may influence provider treatment delivery and adolescent treatment outcomes.

5.2. Conclusions and future directions

It is our hope that this review will provide practical and feasible guidelines for those aiming to improve their practice with cultural minority youth and adolescents. With its roots in CBPR, the strength of Adapt and Evaluate strongly benefits from the active involvement of the community of interest from the outset. From the beginning, the adolescent and caregiver community has a hand in structuring the foundation of the revised manual and approach, likely increasing the community's interest and investment in both using and disseminating the final manual (Venner et al., 2007). However, community involvement also requires special considerations. Because of a strained history, community members can be reluctant to work with researchers, meaning that researchers must be careful and attentive in establishing new relationships with cultural communities (Ahmed, Beck, Maurana, & Newton, 2004). Once the research process is underway, care must be taken to balance community objectives with methodological rigor (O'Toole, Felix Aaron, Chin, Horowitz, & Tyson, 2003). In addition, although approaches exist to effectively tap client satisfaction (subjective report), objective reports (evaluations of integrity) may still need empirical evaluation prior to use. Thus, in Adapt and Evaluate, the challenge rests in ensuring that the active ingredients of the ESI exist after the adaptation (Castro et al., 2004; Interian et al., 2010; Nagayama Hall, 2001). Notably, evaluating outcome data from the final manual is key (Interian et al., 2010).

In contrast, Evaluate and Adapt's strength lies in its evaluation. Specifically, the original intervention administered could (and should) be subjectively and objectively evaluated using existing empirically supported instruments. In addition, this approach yields a wealth of quantitative data that highlight both behavioral outcomes, as well as key mechanisms of this approach. However, this quantitative strength is complicated by the nature of design. For example, measurements are limited to the active ingredients that the research group theorizes to be important. Subsequently, it is possible to miss a potentially salient and culturally relevant mechanism that may be driving outcomes within the ESI or that may influence implementation. The onus lies upon the design team to select a range of factors for evaluation, determining reliable and valid instruments to assess them. Finally, although the original intervention can be evaluated for fidelity, similar to Adapt and Evaluate, once the manual has been adapted, evaluating integrity of the final manual is critical.

5.2.1. Summary and limitations

This review presents two separate approaches for tailoring interventions for cultural minority youth. Although these two approaches are presented as independent strategies, there is likely to be a much more iterative and sophisticated relationship between the two. Research teams may choose to begin with Adapt and Evaluate, then choose to move into

Evaluate and Adapt to continue to shape their intervention (or vice versa).

In addition, the current review addresses how to approach adaptation with several different cultural and developmental groups, working under the presumption that cultural minority adolescents and their families are interested in (and potentially prescribe) a Western medicalized approach to health care. Future work is critical to evaluate how to reach families/children of cultural groups who feel that mental health issues are stigmatizing or that the "establishment" should not be trusted. For example, within these communities, developing relationships with community allies (e.g., churches) might form the first step (preceding even Step 1; Fig. 1), and it might be important to determine local needs (e.g., monetary incentives, gift cards) to ensure the enrollment of a more representative sample. In addition, consistent with the history of historical trauma within AIAN and other cultural minority populations, and recent research (Kelly, 2006), future work would benefit from focusing on recommendations for how to conduct the session with the awareness and attention to the potential presence of historical oppression. Following the work of Koinis-Mitchell et al. (2010), future studies would also benefit from active attention to and incorporation of group-level considerations, including family, socioeconomic, and political factors, including poverty and oppression, when approaching adaptations. Notably, although the focus of the current review is on adapting MI with cultural minority youth, these approaches are highly applicable to other ESIs, as the active ingredients appear to be consistent across interventions (e.g., Imel, Wampold, Miller, & Fleming, 2008; Moyers et al., 2009), age groups (e.g., Baer et al., 2008), and across target behaviors (Hettema et al., 2005). Thus, although these same approaches appear to have great promise for use with adult populations as well, evaluation with adults is an important next step.

Ultimately, we hope for this review to provide a foundation for those working with cultural minority youth to guide the tailoring of their intervention approaches. With the current state of health disparities in substance abuse treatment (Lowman & Le Fauve, 2003; Russo et al., 2004), active and empirical steps toward improving treatment efficacy with cultural minority youth are critical to reducing existing health disparities.

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